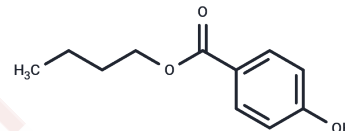


## Butylparaben

### Chemical Properties

CAS No. :	94-26-8
Formula:	C <sub>11</sub> H <sub>14</sub> O <sub>3</sub>
Molecular Weight:	194.23
Storage:	Powder: -20°C for 3 years   In solvent: -80°C for 1 year <i>Actual storage temperature shall be subject to the COA.</i>



### Biological Description

Description	Butylparaben (Butyl 4-hydroxybenzoate) is a standardized chemical allergen, increasing histamine release, and cell-mediated immunity.
Targets(IC50)	Endogenous Metabolite,Antibacterial,Antibiotic,DNA/RNA Synthesis
In vitro	After butylparaben treatment, vimentin filaments in Sertolicells are disrupted. Sertoli cell cytoskeleton responds to butylparaben by exhibiting a marked collapse in vimentin filaments distribution[1].
In vivo	Butylparaben induces collapse of Sertoli cell vimentin filaments in vivo[1]. Exposure of a postweaning mammal to butylparaben had an adverse effect on the secretion of testosterone and in the functions of the male reproductive system[2].
Cell Research	Mixed cultures of Sertoli and spermatogenic cells are prepared from three-week-old SD rats. Single cells are obtained by gravity sedimentation and use of 50% trypsin-EDTA. Cells are finally suspended at a concentration of 1 × 10 <sup>8</sup> cell/ml and maintained for 24 h in Dulbecco's modified Eagle medium supplemented with 100 U/ml penicillin, 100 µg/ml streptomycin, and 10% fetal bovineserum. Thereafter, cells are maintained in serum-freemedium, which is changed every 24 h. At 72 h, spermatogenic cells are removed by treatment with hypotonic Tris buffer (20 mMTris-HCl, pH 7.4) for 5 min. The Sertoli cell-enriched cultures obtained are then maintained in serum-free medium for 24 h before being reseeded onto chamber slides. The samples are cultured for a further 5 days. Subsequently, they are exposed to 0, 1, 100 and 1000 nmol/ml butylparaben for 6 and 24 h. Some slides are stained with 0.5% toluidine blue for light microscopic observations, whereas the rest are used for vimentin immuno-histochemical analysis. (Only for Reference)

### Solubility Information

Solubility	H <sub>2</sub> O: 35 mg/mL (180.2 mM),Sonication is recommended. DMSO: 257.5 mg/mL (1325.75 mM),Sonication is recommended. Ethanol: 36 mg/mL (185.35 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+90% Saline: 10 mg/mL (51.49 mM),Suspension. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and</i>

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In vivo Formulation	<i>used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>
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### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.1485 mL	25.7427 mL	51.4854 mL
5 mM	1.0297 mL	5.1485 mL	10.2971 mL
10 mM	0.5149 mL	2.5743 mL	5.1485 mL
50 mM	0.103 mL	0.5149 mL	1.0297 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

Alam MS, et al. Acta Histochem. 2014, 116(5):682-687.

Oishi S, et al. Toxicol Ind Health. 2001, 17(1):31-39.

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